ARIZONA HOUSE OF REPRESENTATIVES
Fifty-second Legislature – Second Regular Session

COMMITTEE ON AGRICULTURE, WATER, AND LANDS

Report of Regular Meeting
Thursday, January 14, 2016
House Hearing Room 3 -- 10:00 a.m.

Convened 10:04 a.m.
Recessed
Reconvened
Adjourned 10:54 a.m.

Members Present
Mrs. Benally
Mrs. Cobb
Ms. Fann
Mrs. Gabaldón
Ms. Otondo
Mr. Shope
Mr. Mitchell, Vice-Chairman
Mrs. Barton, Chairman

Members Absent
Mr. Montenegro

Agenda
Original Agenda – Attachment 1

Request to Speak
None

Presentations

Name	**Organization**	**Attachments** (Handouts)
Overview of Central Arizona Project, Colorado River Shortage, and wheeling	Central Arizona Project	2, 3

Committee Action

Bill	**Action**	**Vote**	**Attachments** (Summaries, Amendment, Attendance)
NONE			
	Committee Attendance		4

April Riggins
April Riggins, Chairman Assistant
January 22, 2016

(Original attachments on file in the Office of the Chief Clerk; video archives available at http://www.azleg.gov)

Convened: 1004 am
ADJOURNED: 1054 am

ARIZONA HOUSE OF REPRESENTATIVES
Fifty-second Legislature - Second Regular Session

REGULAR MEETING AGENDA

COMMITTEE ON AGRICULTURE, WATER AND LANDS

DATE Thursday, January 14, 2016 ROOM HHR 3 TIME 10:00 A.M. NOTE TIME CHANGE

~~9:00 A.M.~~ .

Members:

Mrs. Benally	Mrs. Gabaldón	Mr. Shope
Mrs. Cobb	Mr. Montenegro	Mr. Mitchell, Vice-Chairman
Ms. Fann	Ms. Otondo	Mrs. Barton, Chairman

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1. Call to Order
2. Introduction of Members, Staff and Interns
3. Presentation by Central Arizona Project: Overview of Central Arizona Project, Colorado River shortage, and wheeling by Gayle Burns, Board Member and Public Policy Committee Chairman; and Theodore Cooke, Interim General Manager

adr
1/7/16

People with disabilities may request reasonable accommodations such as interpreters, alternative formats, or assistance with physical accessibility. If you require accommodations, please contact the Chief Clerk's Office at (602) 926-3032, TDD (602) 926-3241.

Attachment 1

House Agriculture, Water & Lands Committee

Gayle Burns
CAP Board Member

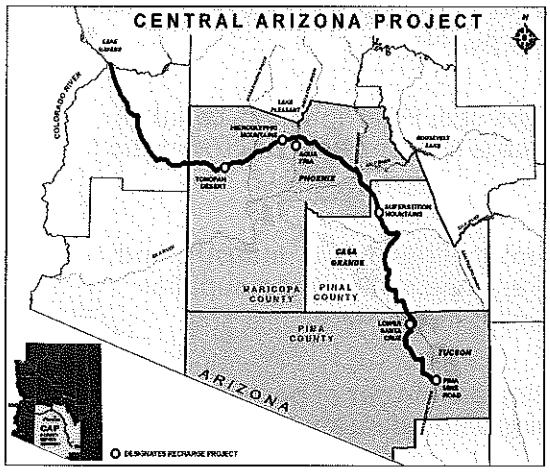
Ted Cooke
CAP Interim
General Manager

January 14, 2016

CAP
CENTRAL ARIZONA PROJECT

YOUR WATER. YOUR FUTURE.

Central Arizona Project



336-mile aqueduct stretches from Lake Havasu to Tucson:

- 14 pumping plants lift water uphill nearly 3,000 feet
- Lake Pleasant/New Waddell Dam are part of the system

CAP annually delivers approx. 520 billion gallons (1.6 million acre-feet); 1 acre-foot = 325,851 gallons

CAP began delivering water to Maricopa County in 1985.

CAP was declared complete in 1993.

CAP CENTRAL ARIZONA PROJECT

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Attachment 2

CAP Governance

CAP is governed by a 15-member Board of Directors.

Each member is popularly elected from CAPs three-county service area and serves a staggered, unpaid six-year term:

- 10 from Maricopa County
- 4 from Pima County
- 1 from Pinal County

The Board meets at least monthly to establish policies, levy taxes, set water rates, approve budgets and address a variety of other critical issues affecting CAP, its customers, and employees.

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CAP and the Economy

- CAP provides water to 80% of the State's population, approximately 5.4 million people.
- CAP's service area of Maricopa, Pinal and Pima counties encompasses 24,000 square miles of land, or 20% of the State.
- CAP serves water to municipalities, tribes, industry, and agriculture (350,000 acres), and is the largest supplier of renewable water supplies in the State.
- CAP also is the largest single end-user of power in Arizona (~2.9 million megawatt hours annually).

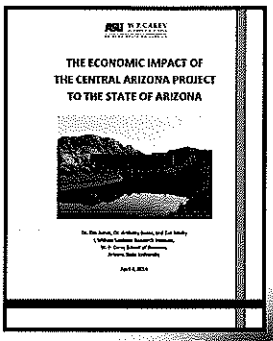
YOUR WATER. YOUR FUTURE. 4

CAP and the Economy

ASU study shows that the existence of CAP plays a significant role in Arizona's overall economy:

- In recent years, CAP deliveries generate an economic benefit approaching $100 billion per year, which is 1/3 of Arizona's entire gross state product.

- In 2010, CAP deliveries generated more than 1.6 million job-years.



YOUR WATER. YOUR FUTURE. 5

Central Arizona Groundwater Replenishment District

CAP has a groundwater replenishment (recharge) division known as CAGRD, which was created by the Legislature in 1993 (A.R.S. § 48-3771 et seq.).

CAGRD is statutorily mandated to replenish groundwater pumped by its members (e.g. cities, private water companies, homeowners) in central and southern Arizona that do not have access to sufficient renewable water supplies like CAP water.

CAGRD

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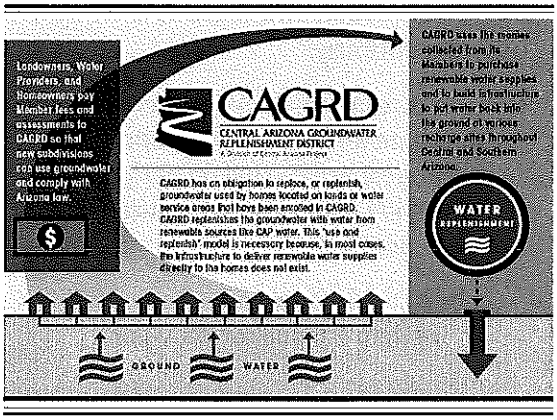
CAGRD

- Helps homes, businesses, and cities comply with ADWR's Assured Water Supply requirements.
- Assesses fees that are based on cost of service (e.g. water supply acquisition, infrastructure). CAGRD does not make a profit.
- Plays a critical role in Arizona's growth and development.



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Today's Focus

Colorado River shortage

Wheeling

YOUR WATER. YOUR FUTURE.

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Colorado River Shortage

- Shortage is a reduction in Colorado River water supply and is declared by the Secretary of the Department of Interior based on the water elevation of Lake Mead.

Lake Mead Elevation	Arizona Reduction	Nevada Reduction	Mexico Reduction
1075'	320,000 AF	13,000 AF	50,000 AF
1050'	400,000 AF	17,000 AF	70,000 AF
1025'	480,000 AF	20,000 AF	125,000 AF

- CAP will bear all of Arizona's reduction during a Colorado River shortage. In addition to increasing the cost of CAP deliveries, shortage will impact:
  - CAP excess water users such as CAGRD, the Arizona Water Banking Authority, and agricultural users/irrigation districts; and,
  - as reductions increase, higher priority CAP customers such as cities, towns and tribes to varying degrees.

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Colorado River Shortage

At the end of December, Lake Mead was at elevation 1,081 feet = 38.9% capacity

- 2016 – no shortage
- 2017 – 18% probability
- 2018 – 50% probability

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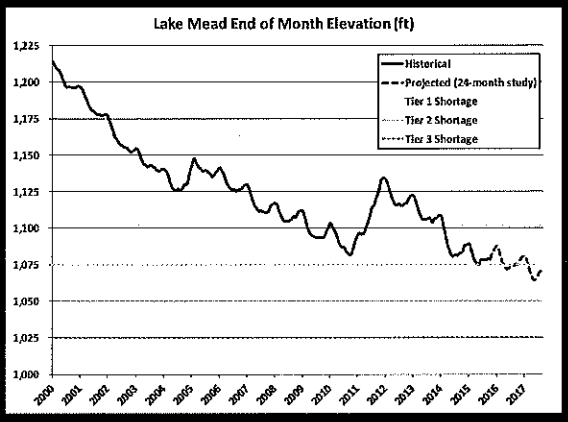
Decline of Lake Mead

Lake Mead elevations have been declining steadily in the past 16 years.

What's causing the decline in Lake Mead?

- Drought hasn't helped, but the overallocation of the system or "structural deficit" is truly the fundamental problem.



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"Structural Deficit"

There is less water flowing into Lake Mead than is released to users.

Average Inflow into Lake Mead:	+	9.0 MAF
Lower Basin use (AZ, CA, NV + Mex.):	-	9.6 MAF
Lake Mead evaporation losses:	-	0.6 MAF
Structural Deficit:	=	(1.2 MAF)

Given basic apportionments in the Lower Basin, the allotment in Mexico, and an 8.23 MAF release from Lake Powell, Lake Mead declines about 12 feet each year.

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Current Adaptation Strategies

CAP, in cooperation with ADWR and other partners in Arizona, is working with the other Basin States and the Bureau of Reclamation to address Colorado River water supply issues through the following actions:

Groundwater Storage

- Nearly 4 million acre-feet stored by CAP through the Arizona Water Banking Authority

Lower Basin Drought Response MOU

- Interstate plan targeting 740,000 acre-feet of system water in Lake Mead

Pilot System Conservation Project(s)

- Interstate funding to conserve system water to protect Lake Mead (target 75,000 acre-feet)

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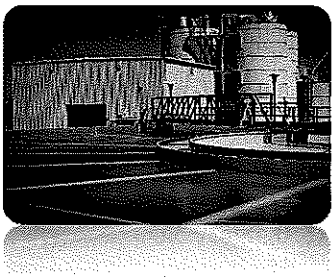
CAP CENTRAL ARIZONA PROJECT

Current Adaptation Strategies

Bypass and Excess Flows Workgroup (ADWR-BOR co-chairs)

- Options for reducing, replacing, and/or recovering bypass flows to Mexico, saving 100,000 acre-feet/yr – may include partial operation of the Yuma Desalting Plant



Augmentation Projects

- Cloud seeding projects in Wyoming, Colorado, and Utah
- Desalination concepts (brackish and seawater)

Lower Basin Drought Contingency Plan

- Other ongoing discussions to further improve Lake Mead elevations

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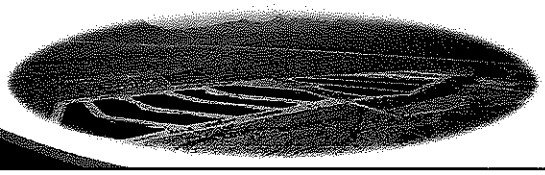
CAP CENTRAL ARIZONA PROJECT

Wheeling

- Wheeling is simply using the CAP canal to transport any water other than CAP's normal Colorado River supply.
  - This is referred to as "Non-Project water," and could include groundwater and other Colorado River water.
- Wheeling Non-project water is a critical issue because of potential shortage impacts, and also Arizona has stored nearly 4 million acre-feet of water and its recovery may require some form of wheeling.
- Although wheeling is contemplated in agreements CAP has with the federal government, the specifics need to be developed.



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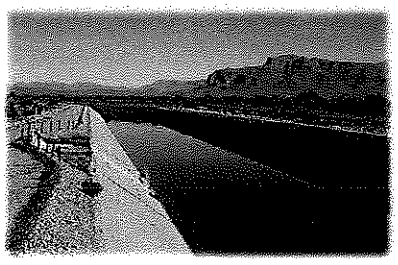
CAP CENTRAL ARIZONA PROJECT

Wheeling

For the past several years, CAP has been working with the Bureau of Reclamation to develop a wheeling proposal. This involves several considerations, including:

- development of a standard wheeling agreement;
- physical canal capacity ;
- priority in the use of the canal, scheduling, and other operational issues;
- costs, including capacity improvements that may be necessary;
- water quality concerns; and,
- environmental compliance.



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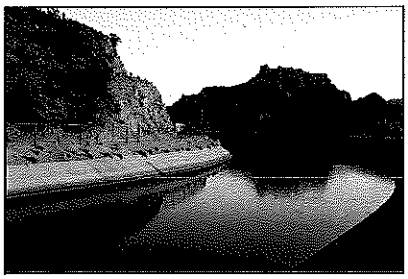
CAP CENTRAL ARIZONA PROJECT

Wheeling

Good progress is being made…

- CAP and Bureau of Reclamation staff are developing the proposed framework and seeking input from ADWR and others.
- A joint Reclamation/CAP stakeholder workshop is planned to educate the public and further discuss wheeling issues.



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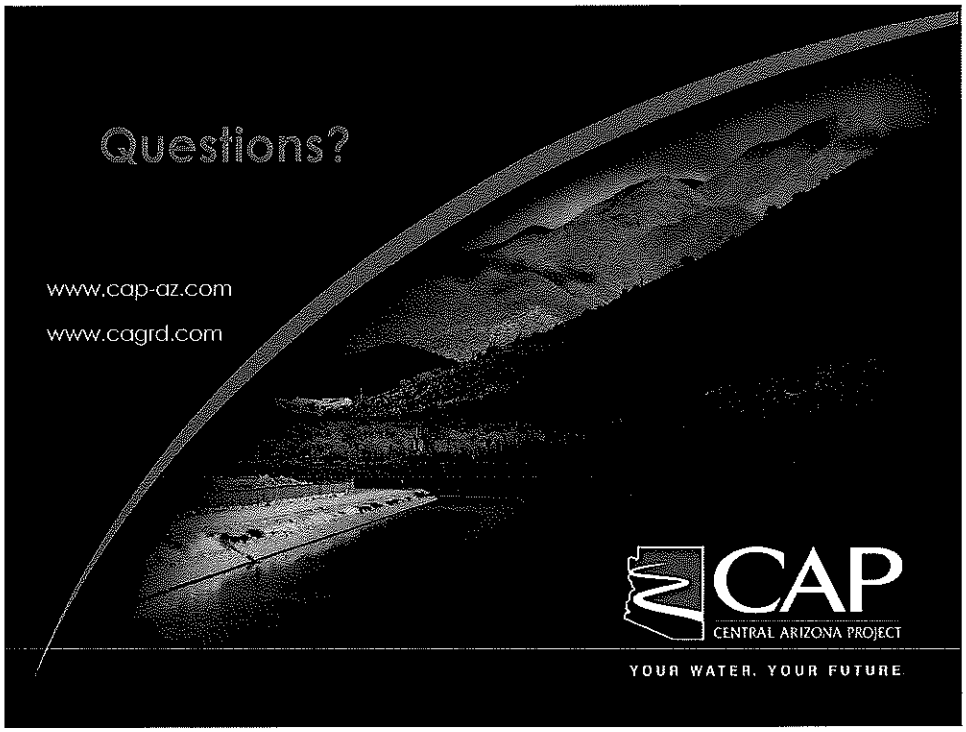
CAP
CENTRAL ARIZONA PROJECT



Central Arizona Groundwater Replenishment District

Background: Water supply requirements for new development

The 1980 Arizona Groundwater Management Act (Act) created four initial Active Management Areas (AMAs) in the state where historic aquifer depletions were severe. The Act also established a number of tools that the Arizona Department of Water Resources (ADWR) uses to protect groundwater supplies in these areas. Among the most powerful of these tools is the Assured Water Supply (AWS) program for new residential development.

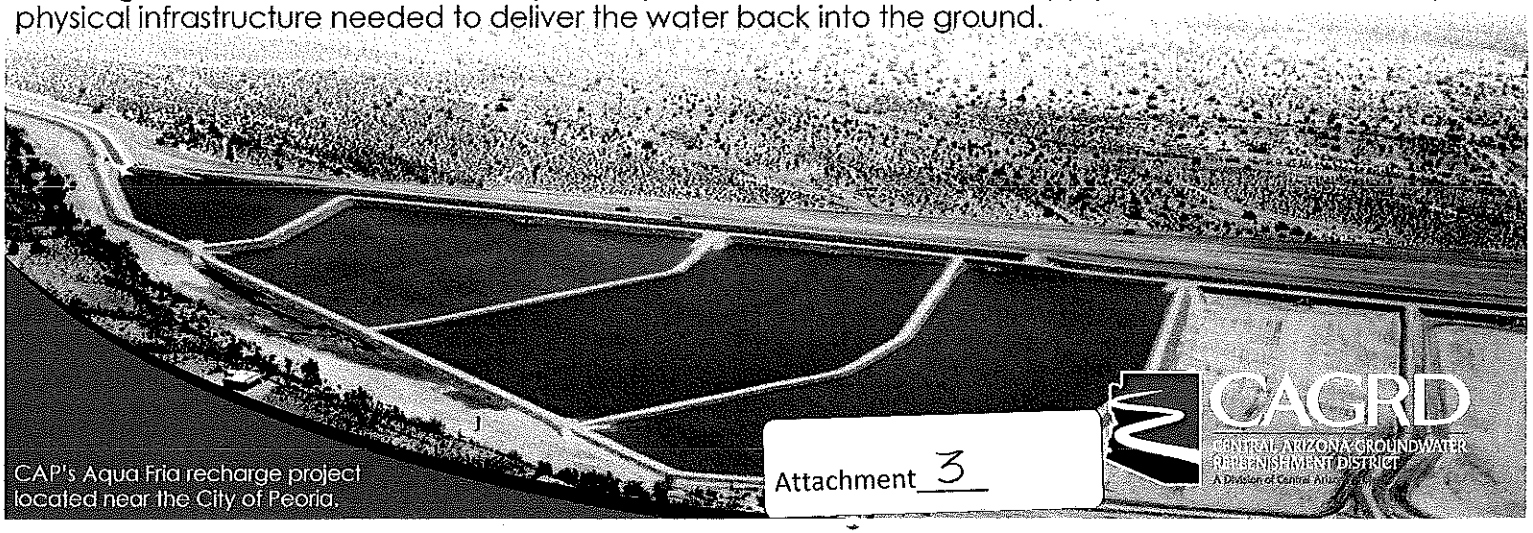
The AWS program protects people who purchase or lease subdivided land within an AMA by requiring that new development demonstrate a long-term, reliable water supply of adequate quantity and quality. Before new land can be legally subdivided, either the landowner or the water provider, including a municipality, must prove to ADWR that there is an on-site water supply physically, legally and continuously available to serve the needs of the new development for the next 100 years.

In addition to other requirements for demonstrating an assured water supply, new development in an AMA must show that the proposed use of water is consistent with the water management goals of the AMA. Although they vary somewhat from one AMA to another, AMA water management goals generally limit the quantity of non-renewable groundwater that may be used to demonstrate a 100-year assured water supply. This groundwater use limitation prevents new development from relying solely on mined groundwater to serve its water demands. As a result, new subdivisions have to either directly or indirectly use renewable supplies, such as Central Arizona Project (CAP) water, to demonstrate consistency with a particular AMA's management goals. For those entities without access to sufficient renewable supplies, Arizona law provides another mechanism to assist in meeting this AWS requirement under certain circumstances – groundwater replenishment.

CAGRD: Another way to meet AWS requirements

In 1993, the Arizona State Legislature created a groundwater replenishment, or recharge, authority operating within the Phoenix, Pinal and Tucson AMAs. To avoid creating yet another water "bureaucracy" in Arizona, this authority was assigned to CAP and is called the Central Arizona Groundwater Replenishment District (CAGRD). Membership in CAGRD provides a means by which a development or water provider can satisfy the AWS requirement that the proposed water use be consistent with water management goals of the particular AMA. CAGRD allows new development to rely on groundwater, but with the requirement that the water provider or the homeowner pays the cost for CAGRD to replace any groundwater use that exceeds the pumping limitations of the AWS program. Therefore, a development or water provider that has access to sufficient quantities of groundwater and desires to rely on groundwater to demonstrate a 100-year supply can do so, provided it becomes a member of the CAGRD. Under this paradigm, it is true that groundwater is initially being used but the groundwater also ultimately must be replaced with renewable water. The mechanism for that replacement is the CAGRD.

The groundwater CAGRD is obligated to replenish is known as "excess groundwater." The cost to replenish excess groundwater includes not only the expense of the actual water supply but also the cost of any physical infrastructure needed to deliver the water back into the ground.

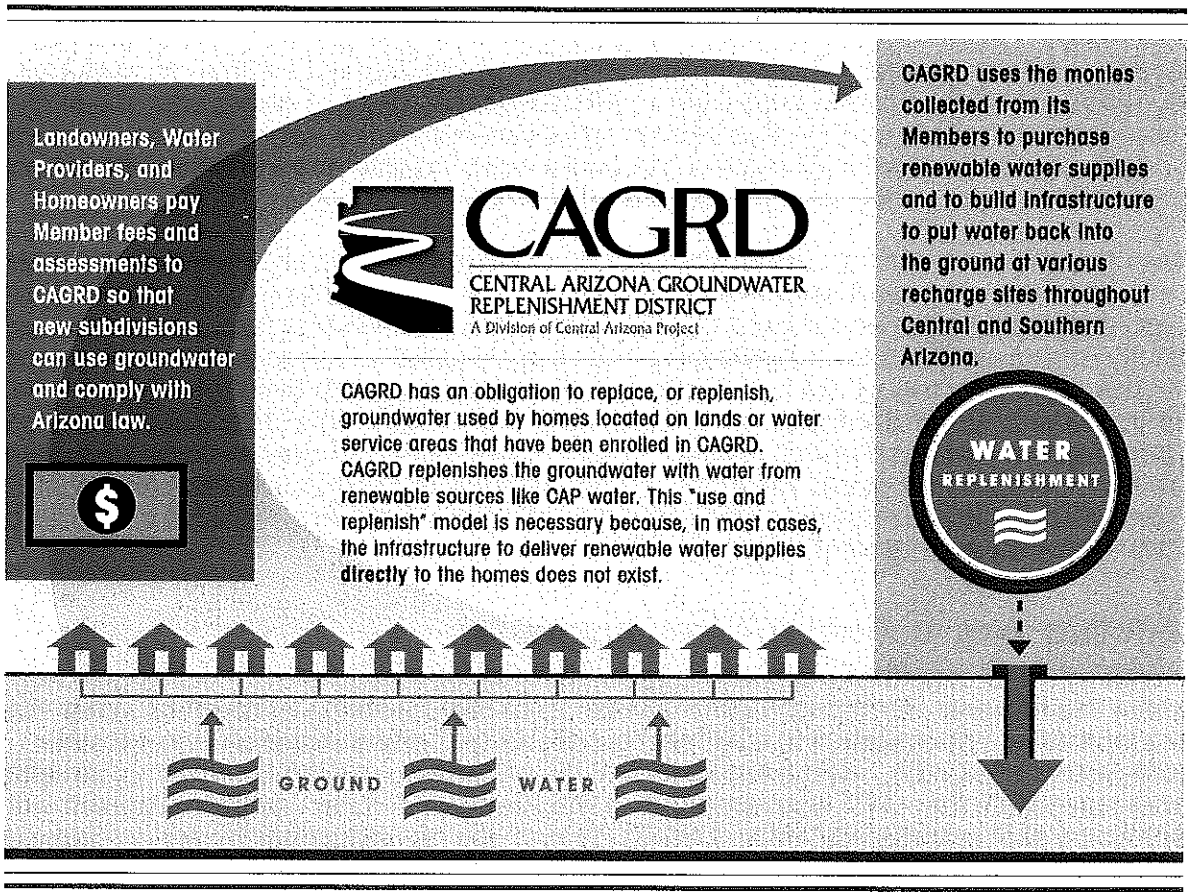


CAP's Aqua Fria recharge project located near the City of Peoria.

Attachment 3

CAGRD's Replenishment Obligation

CAGRD has a legal obligation to replenish in each AMA the amount of excess groundwater pumped by or delivered to its members in that AMA. Replenishment may be accomplished through the operation of direct recharge facilities, such as large permeable basins that infiltrate sizeable quantities of water into an aquifer, or through groundwater savings facilities, such as farms that use renewable water rather than pumping groundwater. Water used for replenishment may be CAP water or water from any other lawfully available source, except groundwater withdrawn from within an AMA. CAGRD's current (2013) annual replenishment obligations are approximately 35,000 acre-feet (ac-ft) and are projected to increase to about 137,000 ac-ft by 2035. An ac-ft is approximately 326,000 gallons.



CAGRD Membership

Any city, town, water company, subdivision or homeowner's association located in the Phoenix, Pinal or Tucson AMA with access to a 100-year physical supply of groundwater may join CAGRD. All costs of CAGRD are paid by its members and are collected through a combination of fees and assessments.

There are two types of CAGRD members:

1. Member Service Areas: The service area of a city, town or private water company. Water providers who become Member Service Areas pay a replenishment assessment directly to CAGRD according to the amount of excess groundwater they deliver within their service areas during a year.
2. Member Lands: An individual subdivision with a defined legal description. For Member Lands, an annual replenishment assessment is collected by the county treasurer from each individual parcel of member land according to the amount of excess groundwater delivered to that parcel.

For more information on the CAGRD,
please visit the website at www.cagrd.com;
or email cagrd@cap-az.com; or, call 623-869-2333.

ARIZONA STATE LEGISLATURE

Fifty-second Legislature - Second Regular Session

COMMITTEE ATTENDANCE RECORD

COMMITTEE ON **AGRICULTURE, WATER AND LANDS**

CHAIRMAN: Brenda Barton VICE-CHAIRMAN: Darin Mitchell

	DATE	1/14 /16	/16	/16	/16	/16
	CONVENED	10:04 a.m.	m	m	m	m
	RECESSED					
	RECONVENED					
	ADJOURNED	10:54 a.m.				
MEMBERS						
Mrs. Benally		✓				
Mrs. Cobb		✓				
Ms. Fann		✓				
Mrs. Gabaldón		✓				
Mr. Montenegro		exc				
Ms. Otondo		✓				
Mr. Shope		✓				
Mr. Mitchell, Vice-Chairman		✓				
Mrs. Barton, Chairman		✓				

√ Present --- Absent exc Excused

Attachment 4